

## C L A I M S

1. Interface for a lamp operating device (13),  
having
  - 5 - at least one input-side terminal (1, 2) for the connection of bus lines or for connection with a button or switch,
  - an evaluation logic (3) for the processing of signals present at the input-side terminal (1, 2) and for the
  - 10 generation of output-side signals for the control of the lamp operating device (3) and
  - at least one electrical isolation element (4), in order to electrically decouple the input-side terminal (1, 2) from the lamp operating device (13),
- 15 characterized in that,  
the evaluation logic (3) is arranged on that side of the electrical isolation element (4) which is towards the at least one input-side terminal (1, 2).
- 20 2. Interface according to claim 1,  
characterized in that,  
the evaluation logic (3) is configured to at least partially switch off a connected lamp operating device (13).
- 25 3. Interface according to claim 2,  
characterized in that,  
the evaluation logic (3) is configured to transmit by means of the electrical isolation element (4) signals or  
30 commands to the connected lamp operating device (13) by means of which this device is separable from the mains voltage (15).
4. Interface according to claim 2 or 3,

characterized in that,

the lamp operating device (13) is separable from the mains by means of a relay or an optocoupler controlled triac.

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5. Interface according to any preceding claim,  
characterized in that,

the evaluation logic (13) is configured to transmit  
setting values to the connected lamp operating device

10 (13) by means of the same and/or by means of a separate  
electrical isolation element (4).

6. Interface according to any preceding claim,  
characterized in that,

15 the electrical isolation element (4) is configured also  
to transmit, in bi-directional manner, signals from a  
connected lamp operating device (13) to the input-side  
terminals and, if applicable, to a bus connected thereto.

20 7. Interface according to any preceding claim,  
characterized in that,

in the idle condition, in which no signals are  
transmitted, a high level signal is present at the input-  
side terminals, which signal supplies the evaluation

25 logic (3) with energy.

8. Interface according any of claims 1 to 6,  
characterized in that,

30 in the idle condition, in which no signals are  
transmitted, there is present at the input-side terminals  
a low level signal, and the evaluation logic (3) can be  
activated by means of a change to a high level signal.

9. Interface for a lamp operating device,

having

- at least one input-side signal terminal (1, 2) for the connection of a bus line or for connection with a button or switch, and
- 5 - an evaluation logic (3) for the processing of signals present at the at least one input-side terminal (1, 2) and for the generation of output-side signals for the control of the lamp operating device (3), and characterized in that,
- 10 the evaluation logic (3) has a voltage supply independent of the mains voltage supply of the lamp operating device (13).

10. Interface according to claim 9,

- 15 characterized in that,  
the evaluation logic (3) is supplied with voltage by means of the at least one input-side signal terminal (1, 2).

- 20 11. Lamp operating device, in particular ballast for a fluorescent tube, having an interface (12) in accordance with any preceding claim.

12. Method for the control of a lamp operating device  
25 via an interface (12), having the following steps:

- application of bus signals or button/switch signals to at least one input-side terminal (1, 2) of the interface (12),
- processing of signals applied at the input-side  
30 terminal and generation of output-side signals for the control of the lamp operating device (13), and thereupon
- transmission of the processed control signals by means of an electrical isolation element (4) to the lamp operating device (13).

13. Method according to claim 12,  
characterized in that,  
by means of the electrical isolation element (4) signals  
5 or commands are transmitted to the connected lamp  
operating device (13), by means of which this device is  
separated from the mains voltage (15).

14. Method according to claim 13,  
10 characterized in that,  
the lamp operating device (13) is separated from the  
mains by means of a relay or an optocoupler controlled  
triac.

15 15. Method according to any of claims 12 to 14,  
characterized in that,  
by means of the electrical isolation element (4) setting  
values are transmitted to the connected lamp operating  
device (13).

20 16. Method according to any of claims 12 to 15,  
characterized in that,  
signals are transmitted from a connected lamp operating  
device (13) to the input-side terminals (1, 2) and, if  
25 applicable, to a bus connected thereto.

17. Method according to any of claims 12 to 16,  
characterized in that,  
in the idle condition, in which no signals are  
30 transmitted, a high level signal is present at the input-  
side terminals (1, 2), which signal supplies the  
evaluation logic (3) with energy.

18. Method according to any of claims 12 to 16,

characterized in that,  
in the idle condition, in which no signals are  
transmitted, a low level signal is present at the input-  
side terminals (1, 2) and the evaluation logic (3) is  
5 activated by means of a change to a high level signal.